



[7590-01-P]

**NUCLEAR REGULATORY COMMISSION**

**RIN 3150-AI01**

**[NRC-2014-0137]**

**Draft Guidance Regarding the Alternate Pressurized Thermal Shock Rule**

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Draft regulatory guide; draft NUREG; request for comment.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC) is issuing for public comment draft regulatory guide (DG), DG-1299, "Regulatory Guidance on the Alternate Pressurized Thermal Shock Rule" and accompanying draft NUREG-2163, "Technical Basis for Regulatory Guidance on the Alternate Pressurized Thermal Shock Rule." The DG provides new guidance for a method that the NRC considers acceptable to permit use of the alternate fracture toughness requirements for protection against pressurized thermal shock (PTS) events for pressurized water reactor (PWR) reactor pressure vessels (RPVs). The draft NUREG provides the technical basis for DG-1299.

**DATES:** Submit comments by **[INSERT DATE: 60 DAYS FROM THE DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**. Comments received after this date will be considered if it is practical to do so, but the NRC is able to ensure consideration only for comments received on or before this date.

**ADDRESSES:** You may submit comments by any of the following methods (unless this document describes a different method for submitting comments on a specific subject):

- **Federal Rulemaking Web Site:** Go to <http://www.regulations.gov> and search for Docket ID NRC-2014-0137. Address questions about NRC dockets to Carol Gallagher; telephone: 301-415-3463; e-mail: [Carol.Gallagher@nrc.gov](mailto:Carol.Gallagher@nrc.gov). For technical questions, contact the individuals listed in the FOR FURTHER INFORMATION CONTACT section of this document.

- **Mail comments to:** Cindy Bladey, Office of Administration, Mail Stop: OWFN-12-H08, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

For additional direction on obtaining information and submitting comments, see “Obtaining Information and Submitting Comments” in the SUPPLEMENTARY INFORMATION section of this document.

**FOR FURTHER INFORMATION CONTACT:** Gary Stevens, Office of Nuclear Reactor Regulation, telephone: 301-415-3608; e-mail: [Gary.Stevens@nrc.gov](mailto:Gary.Stevens@nrc.gov); Mark Kirk, Office of Nuclear Regulatory Research, telephone: 301-251-7631; e-mail: [Mark.Kirk@nrc.gov](mailto:Mark.Kirk@nrc.gov); or Steve Burton, telephone: 301-415-7000; e-mail: [Stephen.Burton@nrc.gov](mailto:Stephen.Burton@nrc.gov). U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

## SUPPLEMENTARY INFORMATION:

### I. Obtaining Information and Submitting Comments.

#### A. Obtaining Information.

Please refer to Docket ID NRC-2014-0137 when contacting the NRC about the availability of information for this action. You may obtain publicly-available information related to this action by the following methods:

- **Federal Rulemaking Web site:** Go to <http://www.regulations.gov> and search for Docket ID NRC-2014-0137.

- **NRC's Agencywide Documents Access and Management System (ADAMS):**

You may obtain publicly-available documents online in the ADAMS Public Documents collection at <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "[ADAMS Public Documents](#)" and then select "[Begin Web-based ADAMS Search](#)." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to [pdr.resource@nrc.gov](mailto:pdr.resource@nrc.gov). The ADAMS accession number for each document referenced in this document (if that document is available in ADAMS) is provided the first time that a document is referenced. Draft Guide-1299, "Regulatory Guidance on the Alternate Pressurized Thermal Shock Rule," is available in ADAMS under Accession No. ML14056A011. Draft NUREG-2163, "Technical Basis for Regulatory Guidance on the Alternate Pressurized Thermal Shock Rule," is available in ADAMS under Accession No. ML15058A677.

- **NRC's PDR:** You may examine and purchase copies of public documents at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

## B. Submitting Comments.

Please include Docket ID NRC-2014-0137 in the subject line of your comment submission.

The NRC cautions you not to include identifying or contact information that you do not want to be publicly disclosed in your comment submission. The NRC will post all comment submissions at <http://www.regulations.gov> as well as enter the comment submissions into ADAMS. The NRC does not routinely edit comment submissions to remove identifying or contact information.

If you are requesting or aggregating comments from other persons for submission to the NRC, then you should inform those persons not to include identifying or contact information that they do not want to be publicly disclosed in their comment submission. Your request should state that the NRC does not routinely edit comment submissions to remove such information before making the comment submissions available to the public or entering the comment into ADAMS.

## II. Discussion.

The NRC is issuing for public comment a draft guide (DG) in the NRC's "Regulatory Guide" series. The DG, titled "Regulatory Guidance on the Alternate Pressurized Thermal Shock Rule," is temporarily identified by its task number, DG-1299. This DG provides new guidance for a method that the NRC considers acceptable to permit use of the alternate fracture toughness requirements for protection against PTS events for PWR RPVs in part 50 of Title 10 of the *Code of Federal Regulations* (10 CFR), "Domestic Licensing of Production and Utilization Facilities," 10 CFR 50.61a, "Alternate Fracture Toughness Requirements for Protection against Pressurized Thermal Shock Events" (RIN 3150-AI01). DG-1299 is accompanied by draft

NUREG-2163, "Technical Basis for Regulatory Guidance on the Alternate Pressurized Thermal Shock Rule." This NUREG provides the technical basis for the guidance recommended in DG-1299. The NRC is issuing the draft NUREG for public comment at the same time as the DG to allow for common review of both documents.

The alternate PTS requirements are based on updated analysis methods, and are desirable because the requirements in 10 CFR 50.61a are based on overly conservative probabilistic fracture mechanics analyses.

### **III. Backfitting and Issue Finality.**

The DG, if finalized, would provide guidance on the methods acceptable to the NRC for complying with the NRC's regulations associated with alternate fracture toughness requirements for protection against PTS events for PWR RPVs. The NUREG, if finalized, would provide technical bases that support the DG. The DG would apply to certain current holders of power reactor licenses and construction permits under 10 CFR part 50. The alternate PTS requirements of 10 CFR 50.61a apply to certain holders of operating licenses for a PWR whose construction permit was issued before February 3, 2010; however, this DG also provides guidance for licensees whose construction permits were issued after February 3, 2010, but wish to utilize the alternate PTS criteria via exemption. Therefore this guidance may also apply to future applicants for operating licenses and construction permits under 10 CFR part 50, as well as certain current holders of and future applicants for power reactor licenses under 10 CFR part 52.

Issuance of this DG and NUREG, if finalized, would not constitute backfitting under 10 CFR part 50 and would not otherwise be inconsistent with the issue finality provisions in

10 CFR part 52. As discussed in the “Implementation” section of DG-1299, the NRC has no current intention to impose the DG, if finalized, on current holders of 10 CFR part 50 operating licenses or 10 CFR part 52 combined licenses. This DG, if finalized, could be applied to applications for certain 10 CFR part 50 operating licenses or construction permits and 10 CFR part 52 combined licenses. Such action would not constitute backfitting as defined in 10 CFR 50.109 or be otherwise inconsistent with the issue finality provisions in 10 CFR part 52, inasmuch as such applicants are not within the scope of entities protected by 10 CFR 50.109 or the issue finality provisions in 10 CFR part 52.

Dated at Rockville, Maryland, this 6<sup>th</sup> day of March, 2015.

For the Nuclear Regulatory Commission.

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